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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,912	11/18/2003	Kenji Yoshisue	056272.52903US	4007
23911	7590	03/10/2006	EXAMINER	
CROWELL & MORING LLP INTELLECTUAL PROPERTY GROUP P.O. BOX 14300 WASHINGTON, DC 20044-4300			LOCKETT, KIMBERLY R	
			ART UNIT	PAPER NUMBER
			2837	

DATE MAILED: 03/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/714,912

Applicant(s)

YOSHISUE ET AL.

Examiner

Kim R. Lockett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☒ Claim(s) 10 and 11 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/05
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Corwin in view of Nobumasa et al.

Corwin discloses the use of an plastic action part for a piano which is pivotally moved along with depression of a key to thereby transmit key depression energy generated depression of a key to a hammer(3), wherein the action parts are formed by a plastic molding. Corwin further discloses the use of a plastic jack(4) and a plastic wippen (3) pivotally moved by being pushed up by the key depression.

Corwin does not disclose the use of a piano element that is molded by a long fiber process and contains long fibers for reinforcement.

Nobumasa et al discloses the use of lightweight material made from a thermoplastic resin made from continuous long fibers for reinforcement (column 4, lines 30-35 & lines 55-65). Nobumasa et al further discloses the use of carbon fibers (column 3, lines 25-45) and the use of ABS resin (column 8, lines 5-14).

Corwin and Nobumasa do not disclose the specific use of thermoplastic. However thermoplastic molding is defined as a material that softens when heated and hardens again when cooled and plastic has that characteristic.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device as disclosed by Corwin with the long fibers as disclosed by Nobumasa et al and the method of thermoplastic molding in order to provide a piano parts with a high degree of durability.

3. Claims 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Corwin view of Nobumasa et al and. Niitsuma.

Corwin and Nobumasa et al do not disclose the specific use of a wippen characteristics as disclosed in claims 6-10.

Niitsuma discloses the use of an action part, a wippen(30) made from synthetic resin (column 12, lines 55-65). Niitsuma also discloses the use of an action part that is a wippen (830) that comprises a main body that extends in a front-rear direction, and includes a continuous front part, a rear part pivotally supported about a horizontal axis, and a central part located between the front part and the rear part, and having a vertical length larger than those of the front part and the rear part, a heel section for being pushed up by the key, said heel section with an increased thickness reinforcing portion (see figure 17) protruding downward from the central part of the main body, and being continuous with the front part and the rear part of the main body via respective transition portions having obliquely linear or curved lower surfaces, and a recess (see figure 15) formed in at least one of said main body and heel sections for reducing a weight of at least one of the main body and heel sections.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device as disclosed by Steinway with the long fibers as disclosed by Nobumasa et al and the wippen physical characteristics as disclosed by Niitsuma in order to provide an action part that is lightweight yet durable.

4. Claims 10 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. Applicant's arguments with respect to claims 1-9 have been considered but are moot in view of the new ground(s) of rejection.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Papers related to this application may be submitted to Group 2800 by facsimile transmission. Papers should be faxed to Group 2800 via the PTO 2800 Fax Center at 703-872-9306.

For assistance in **Patent procedure, fees or general Patent questions** calls should be directed to the **Patents Assistance Center (PAC)** whose telephone number is **800-786-9199**. Assistance is also available on the Internet at www.uspto.gov.

Any inquiry concerning **this communication or earlier communications from the examiner** should be directed to **Kim Lockett** whose telephone number is **(703) 308-7615, after 2/3/04 my new number will be (571) 272-2067**. The examiner can normally be reached on Monday through Friday from 7:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula Bradley can be reached on (571) 272-2800 ext. 33.



**KIMBERLY LOCKETT
PRIMARY EXAMINER**